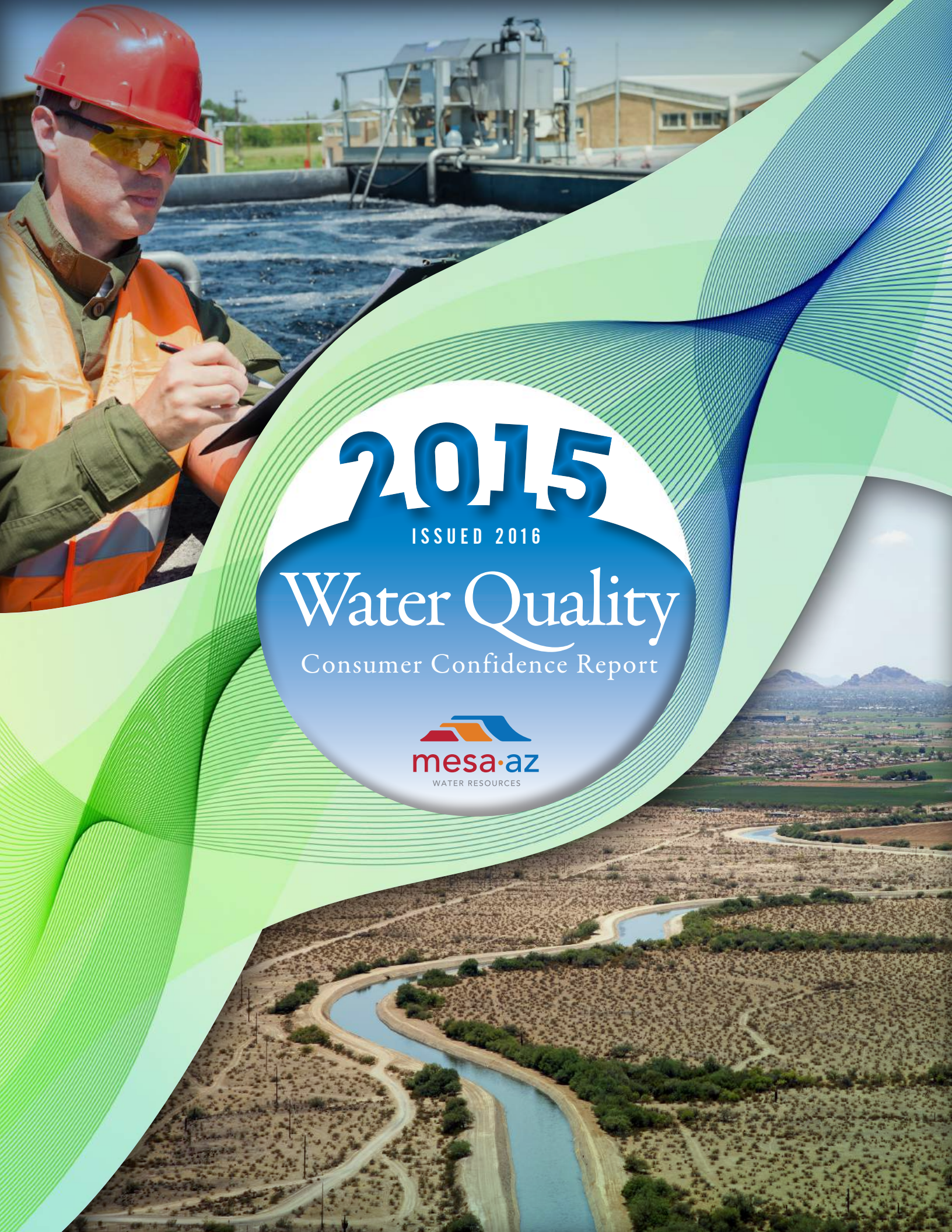


2015

ISSUED 2016

Water Quality

Consumer Confidence Report

mesa·az

WATER RESOURCES

A MESSAGE FROM THE DIRECTOR

I am pleased to present the City of Mesa 2015 Consumer Confidence Report. You are receiving this report as one of nearly a half-million lucky people who call Mesa home. Mesa residents enjoy a lifestyle envied by others with beautiful weather, a strong economy, year-round attractions and natural beauty. Water is an integral part of the life we enjoy and it is the responsibility of the City of Mesa Water Resources Department to ensure the water we deliver is clean, safe and reliable. We treat this responsibility as a personal point of pride and we want you to be confident about the quality of water you receive every time you turn on the tap. As you consider the important information in this report, there are a few key points I want to highlight:

Mesa has a strong water portfolio. The Arizona Department of Water Resources has granted Mesa a 100-year assured water supply designation. Through decades of careful planning, strategic action and sustainable practices, Mesa has positioned itself to have access to our fair share of water supplies that will last for many years to come. We welcome new residents and businesses to our community knowing that we have adequate water supplies to meet their needs.

We take our pipes seriously. The City of Mesa invests millions of dollars in water infrastructure every year to keep our system performing at optimum levels. Through our ongoing Pipe Inspection and Replacement Program, we monitor 2,370 miles of water mains using sophisticated technology to identify pipes to be replaced on a risk-based prioritization.

We are water professionals who are dedicated to public health and safety. The City of Mesa has inspectors, analysts, technicians, engineers and water treatment specialists who work diligently to ensure the safety of your drinking water. In these pages, you will find information about water quality, sources, treatment and testing including results from the 2015 monitoring for the Environmental Protection Agency's Lead and Copper Rule.

I am confident the information in this report will shed some light not only on the quality of your drinking water, but the value of water and how much effort and dedication is involved in providing this precious resource to each Mesa home and business. We are here to help, so please let us know if you have any questions or concerns.

Sincerely,

DK Cleavenger

Daniel K. Cleavenger, P.E.
Water Resources Department Director

ABBREVIATIONS AND DEFINITIONS

Throughout this report you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions:

- **ADEQ (Arizona Department of Environmental Quality)**
- **AL (Action Level)** - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a community water system shall follow.
- **gpg (Grains Per Gallon)** - Unit of water hardness used for setting water softeners. One gpg equals 17.1 ppm or mg/L of hardness.
- **L/mg-m (Liters Per Milligram–Meter)** - Unit of measure used to report SUVA values.
- **LRAA (Locational Running Annual Average)** - The running annual average of sample data collected at one location.
- **MCL (Maximum Contaminant Level)** - The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **MCLG (Maximum Contaminant Level Goal)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (EPA).
- **MCESD (Maricopa County Environmental Services Department)**
- **MRDL (Maximum Residual Disinfectant Level)** - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal)** - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **NA (Not Applicable)** – Samples are not required.
- **ND (Non Detect)** - Samples were taken but the substance was not detected by laboratory analysis. Therefore, there is no reportable result.
- **NE (None Established)** - Regulatory limit has not been established by the EPA.
- **NTU (Nephelometric Turbidity Units)** - Unit of measure for turbidity. Turbidity is a measure of water clarity.
- **pCi/L (PicoCuries Per Liter)** - Unit of measurement for some radionuclides in water.
- **ppb (Part Per Billion)** - One ppb corresponds to one drop in 13,563 gallons. One ppb is equivalent to one microgram per liter (µg/L).
- **ppm (Part Per Million)** - One ppm corresponds to one drop in 13.6 gallons. One ppm is equivalent to one milligram per liter (mg/L).
- **ppt (Part Per Trillion)** - One part per trillion corresponds to one drop in 13,563,368 gallons. One ppt is equivalent to one nanogram per liter (ng/L).
- **RAA (Running Annual Average)** - Moving average based upon the previous twelve months (or four quarters) of monitoring data.
- **SUVA (Specific Ultraviolet Absorbance)** - Specific ultraviolet absorption at 254 nanometers (nm), an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm by its concentration of dissolved organic carbon.
- **TT (Treatment Technique)** - A required process to reduce the level of a contaminant in drinking water.
- **WTP (Water Treatment Plant)**

PROTECTING YOUR DRINKING WATER

Mesa's highly trained water quality inspectors, analysts, chemists and water treatment specialists are responsible for assuring high quality water is consistently delivered to your home. In 2015, over 15,800 analyses were conducted on approximately 2,900 samples collected throughout the year. Samples are collected to meet regulatory and process requirements and tested daily, weekly and monthly at Mesa's own state certified laboratory and by outside laboratories. These tests are overseen by various federal, state and local regulatory agencies.

PROVIDING QUALITY WATER FOR OVER A CENTURY

For over 100 years, the City of Mesa has been committed to providing its customers with water that meets more than 100 state and federal drinking water standards. Our number one goal is to provide you and your family with a safe and dependable supply of drinking water. We are happy to report that in 2015, your tap water met all drinking water health standards. The City of Mesa vigilantly safeguards its water supplies and we are proud to provide this summary report detailing our monitoring efforts.

WHY YOU SHOULD READ THIS REPORT

This report contains important information about the water you drink and use every day. You will find details about where your water comes from, the testing that was performed, and what was found in the water we deliver to you. To ensure tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) established regulations that limit the amount of contaminants in water provided by public water systems. This report is a snapshot of the most recent water quality monitoring conducted by the City of Mesa and how your water measures up to those limits.

Questions about drinking water are important and answers to many common questions can be found in this report. Additional questions or comments can be directed to the city, state or federal contacts listed on the back cover.

Este informe contiene información importante acerca de su agua potable. Este informe está disponible en español. Llame al **480-644-4364** para obtener el folleto en Español, o hable con alguien que lo entienda.

DRINKING WATER CONTAMINANTS

Drinking water sources (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. The sources of Mesa's drinking water are further discussed on pages 6 and 7.

CONTAMINANT INFORMATION

Both tap water and bottled water may realistically be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk to you and your family. The EPA prescribes enforceable regulations that limit the amount of certain contaminants allowed

in water provided by public water systems. Bottled water is regulated by the U.S. Food and Drug Administration (FDA) as a food product and is required to meet standards equivalent to those the EPA sets for tap water. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline **(800) 426-4791** or visiting **www.epa.gov/your-drinking-water/safe-drinking-water-hotline**.

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

- **Microbial contaminants,** such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, recreational activities and wildlife.
- **Inorganic contaminants,** such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and herbicides,** which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants,** which can be naturally occurring or be the result of oil and gas production and mining activities.

FACTS ABOUT COLIFORM BACTERIA

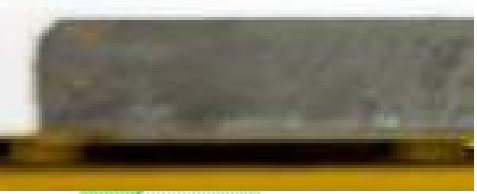
Coliform bacteria are common microbes used as indicators of drinking water quality. Coliform bacteria are generally not harmful and are naturally present in the environment. They serve as an indicator of the sanitary quality of your drinking water. Samples are collected weekly throughout Mesa's water system to confirm these bacteria are not present in your water. Results from our 2015 coliform monitoring are found in the table on page 8.

ADDITIONAL INFORMATION ABOUT NITRATE, LEAD, RADON AND ARSENIC

- **Nitrate -** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your healthcare provider. Nitrates are monitored annually in both groundwater and finished surface water sources. None of Mesa's water sources exceed the EPA's limit for nitrate (measured as nitrogen) set at 10 ppm.

- **Lead and Copper -** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Mesa is responsible for providing high quality drinking water, but cannot control the variety of materials used by homeowners in plumbing components. When your water

THE CITY OF MESA'S WATER MEETS EPA STANDARDS FOR THE LEAD AND COPPER RULE.



has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for a minimum of 30 to 60 seconds before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may want to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at **www.epa.gov/your-drinking-water/safe-drinking-water-hotline**.

Mesa monitored for lead and copper in 2015 at 50 homes throughout the community. The action levels established by EPA are 1300 parts per billion (ppb) for copper and 15 ppb for lead. Compliance with this requirement is based on 90% of the samples being below the action levels. From the samples taken in 2015, the 90th percentile value for copper was 91 ppb and for lead 4.7 ppb. The action level for lead and copper was not exceeded in any of the 50 samples collected.

- **Radon -** Radon is a radioactive gas that you cannot see, taste or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is four picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not costly. For additional information, call your state radon program or call EPA's Radon Hotline at **(800) SOS-RADON**.

- **Arsenic -** Some of Mesa's drinking water sources contain low levels of arsenic, a naturally occurring mineral. Beginning in January 2006, allowable arsenic levels were reduced from 50 ppb to 10 ppb. The EPA determined this standard by balancing the current understanding of arsenic's possible health effects against the costs of removing it from drinking water. The EPA continues to research the health effects of low-level exposure to arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

SOURCE WATER ASSESSMENT

A source water assessment identifies potential sources of contaminants to the water we use for drinking. The Arizona Department of Environmental Quality (ADEQ) reviewed adjacent land uses and ranked them as to their potential to affect Mesa's water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agricultural fields, wastewater treatment plants and mining operations. In 2004, the ADEQ completed a source water assessment of Mesa's wells and one surface water treatment plant. The result of Mesa's assessment was high risk due to some industries located in the city. However, this does not mean the drinking water is compromised, only that at least one high-risk activity was identified.

The complete assessment can be reviewed at **ADEQ, 1110 W. Washington Street, Phoenix, Arizona 85007**, between 8 a.m. and 5 p.m. You can request an electronic copy via e-mail at **dml@azdeq.gov**. For more information visit ADEQ's Source Water Assessment and Protection Unit Web site at **www.azdeq.gov/environ/water/assessment/index.html**.

TAKING SPECIAL PRECAUTIONS - CUSTOMERS WITH SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as persons undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at **(800) 426-4791** or at **www.epa.gov/your-drinking-water/safe-drinking-water-hotline.**

UNREGULATED CONTAMINANT MONITORING RULE 3

Unregulated contaminant monitoring helps the EPA determine if specific contaminants occur in the nation's drinking water and whether those contaminants need to be regulated. The Unregulated Contaminant Monitoring Rule 3 (UCMR3) specifies 29 contaminants of emerging concern (CECs), and requires every water system in the United States to sample for them. Mesa conducted UCMR3 monitoring from January 2013 to January 2015 at all of the source water "Entry Points to the Distribution System" and at corresponding "Distribution System Maximum Residence Time" locations within the water system. Mesa detected ten of the 29 CECs either in the source water or in the distribution system. The Unregulated Contaminant Monitoring table summarizing results from the UCMR3 monitoring is provided in this report on page 10.

MESA'S WATER SOURCES

Mesa relies on two sources for its drinking water: surface water and groundwater wells. Water from these two sources can vary in hardness and other characteristics. The city is divided into two zones - the "City Zone" and the "Eastern Zone" - with the Eastern Canal serving as the dividing line between the two zones. (See map on page 7.) The canal runs diagonally southeast from Gilbert and McDowell Roads to Greenfield and Baseline Roads. The zone you live in determines whether the water you receive originated from surface water, a groundwater well or a mixture of both.

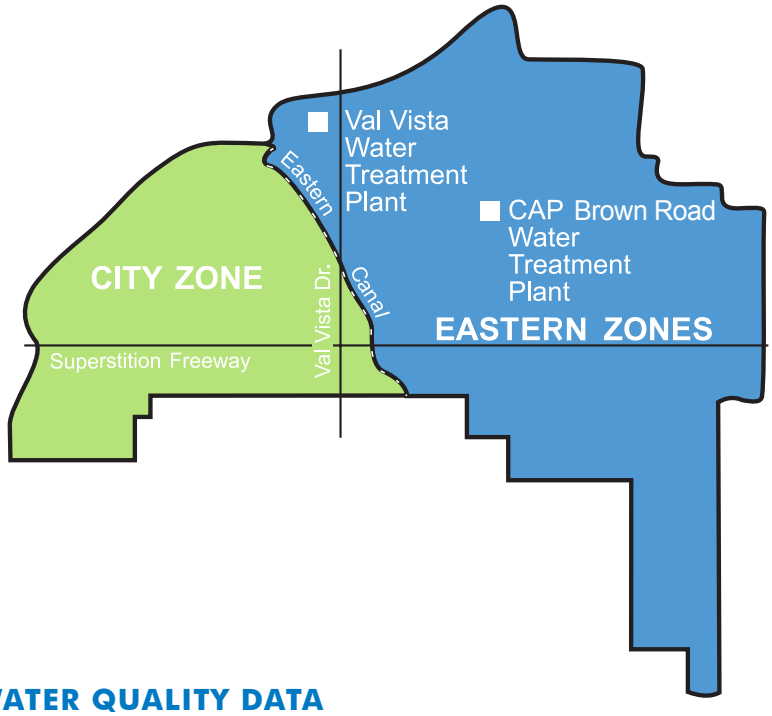
1. **City Zone** - Salt and Verde River water from the Salt River Project (SRP) supplies water delivered in the City Zone. This water is treated at the Val Vista Water Treatment Plant by using conventional filtration, fluoridation, and disinfection using chlorine dioxide and chlorine before entering into Mesa's water distribution system. Approximately 37% of the water served to Mesa's customers in 2015 came from this source.

2. **Eastern Zones** - Colorado River water delivered through the Central Arizona Project (CAP) provides water delivered in the Eastern Zones. This water is treated at the CAP Brown Road Water Treatment Plant by using conventional filtration, fluoridation, and disinfection using chlorine dioxide and chlorine before entering into Mesa's water distribution system. Approximately 54% of the water served to Mesa's customers in 2015 came from this source.

3. **City Wells** - 16 deep aquifer wells supply drinking water throughout the City Zone. After chlorination, water from these wells is typically blended with surface water from the Val Vista Water Treatment Plant. However, during certain times throughout the year, some customers may receive only groundwater from one or more of these wells. Approximately 4% of the water served to Mesa's customers came from this source in 2015.

4. **Eastern Wells** - 14 deep aquifer wells supply drinking water throughout a wide area in Mesa's Eastern Zones. After chlorination, water from these wells is blended with surface water treated at the CAP Brown Road Water Treatment Plant. Approximately 5% of the water served to Mesa's customers came from this source in 2015.

Water Service Areas



2015 WATER QUALITY DATA

The following tables list drinking water contaminants detected in calendar year 2015 and data from the most recent testing done in accordance with the Safe Drinking Water Act. The State allows water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old. The presence of contaminants does not indicate that the water poses a health threat, only that they were detected during routine compliance monitoring. Not listed are many other regulated contaminants that were tested for but not detected.

2015 Distribution System Data - All Results Meet Regulatory Standards

Parameter	Units	MCL	MCLG	Range (Average)	Mesa's Entire Distribution System	City Zone (Val Vista WTP)	Eastern Zone (CAP Brown Rd WTP)	Sources of Contamination in Drinking Water
MICROBIOLOGICAL								
Total Coliform Bacteria	# Pos in 2015	< 5% Monthly [A]	0	# Positives in 2015 (Highest Monthly %)	3 (0.90%)	NA	NA	Naturally present in the environment
DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS								
Chlorite [B]	ppm	1	0.8	Range (Average)	0.08 - 0.6 (0.2)	ND - 0.8 (NA)	0.07 - 0.7 (NA)	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs) [C]	ppb	LRAA= 80	NA	Range of TTHMs (Highest of all LRAA)	1.5 - 98 (75)	NA	NA	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5s) [C]	ppb	LRAA= 60	NA	Range of HAA5s (Highest of all LRAA)	ND - 27 (22)	NA	NA	Byproduct of drinking water disinfection
Free Chlorine Residual	ppm	MRDL= 4	MRDLG= 4	Range (Average)	ND - 2.6 (1.0)	0.5 - 3.4 (1.1)	1.3 - 1.7 (1.5)	Water additive used to control microbes
Chlorine Dioxide [D]	ppb	MRDL= 800	MRDLG= 800	Range (Average)	NA	ND - 480 (NA)	ND - 260 (NA)	Water additive used to control microbes
METALS AS A BYPRODUCT OF CORROSION IN CONSUMERS' PLUMBING								
Lead [E]	ppb	AL= 15	15	Range (90th percentile of 50 samples)	ND - 7.6 (4.2)	NA [E]	NA [E]	Corrosion of household plumbing systems; erosion
Copper [E]	ppb	AL= 1300	1300	Range (90th percentile of 50 samples)	7.5 - 163 (90)	NA [E]	NA [E]	Corrosion of household plumbing systems; erosion
FLUORIDATED DRINKING WATER								
Fluoride (treated water) [F]	ppm	[F]	[F]	Range (Average)	0.2 - 0.8 (0.6)	0.8*	0.6 - 0.8 (0.7)	Water additive to promote strong teeth
TREATMENT PRECURSOR REMOVAL								
						City Zone (Val Vista WTP)		
						Monthly Range of Values	Lowest Quarterly RAA Ratio	
Total Organic Carbon Removal	Ratio	TT=the quarterly RAA ratio must=1 or greater	NA		NA	0.5 - 2.3	1.4	Naturally present in the environment
						Eastern Zone (CAP Brown Rd WTP)		
						Monthly Range of Values	Highest Quarterly RAA SUVA	
Treated Water Specific Ultraviolet Absorbance (SUVA)	L/mg-m	TT=the quarterly RAA SUVA must be 2.00 or less	NA		NA	1.29 - 1.34	1.34	Naturally present in the environment

Footnotes:

[A] - Total coliform MCLs: No more than 5% of the monthly samples may be total coliform-positive (# Pos). Compliance is based on weekly distribution system samples. Mesa analyzed 2,647 coliform samples in 2015. The highest monthly coliform percentage for positive sample results reported to MCESD was 0.90%. The MCL was not violated in 2015.

[B] - Chlorite is a byproduct of chlorine dioxide disinfection and is monitored on a quarterly basis throughout the distribution system.

[C] - Compliance for this rule is based upon the locational running annual average (LRAA) from samples collected quarterly at twelve locations throughout the distribution system. The LRAA must not exceed 80 ppb for TTHMs or 60 ppb for HAA5s at any location upon averaging four consecutive quarters. The MCL was not violated in 2015.

[D] - Chlorine dioxide is used as the primary disinfectant of water entering the water treatment plants. Chlorine dioxide is measured daily in the finished water leaving the plant.

[E] - Mesa's 2015 data for lead and copper monitoring met the standard for the Lead and Copper Rule. Lead and copper are regulated as a Treatment Technique (T T) under the Lead and Copper Rule, which requires systems to take samples at consumers' taps every three years. Results are from 2015 monitoring. Neither lead nor copper are typically found in source waters but can get into water by way of internal corrosion of household plumbing. The 90th percentile number reported in the table is below the action level for each parameter. Compliance is based upon all samples collected throughout the City. Therefore, data is not broken down by service area.

[F] - Mesa began fluoridation of drinking water in 1999 as a result of 1998 voter approval by the majority of Mesa residents. On April 27, 2015, the CDC released a recommendation that water suppliers reduce their fluoride dosage to 0.7 milligrams per liter (mg/L) from a range between 0.7 mg/L and 1.2 mg/L.

***** Sampled in 2011 by the City of Phoenix. Some data, though representative, are more than one year old. The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

(Footnotes continued at end of page 9)

2015 Regulated Contaminants - All Results Meet Regulatory Standards

Parameter	Units	MCL	MCLG	Range (Avg)	City Zone (Val Vista WTP)	City Zone Wells	Eastern Zone (CAP Brown Rd WTP)	Eastern Zone Wells	Sources of Contamination in Drinking Water
% of total water production delivered by Mesa					37%	4%	54%	5%	
INORGANIC CHEMICALS									
Arsenic [G]	ppb	10	0	Range (Avg)	ND	ND - 6.2 (4.0) [H]	ND	1.2 - 7.3 (4.2) [H]	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes
Barium	ppb	2000	2000	Range (Avg)	30	16 - 85 (34)	118	2.0 - 44 (12)	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium, Total	ppb	100	100	Range (Avg)	ND	ND - 6.0 (3.0)	ND	2.0 - 19 (12)	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (Naturally Occurring)	ppm	4.0	4.0	Range (Avg)	NA	ND - 0.42 (0.14)	NA	0.29 - 1.2 (0.50)	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate [I] (Measured as Nitrogen)	ppm	10	10	Range (Avg)	ND	ND - 7.6 (3.0) [I]	0.24 - 0.32 (0.28)	0.8 - 3.8 (1.9)	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Nickel [J]	ppb	NA	NA	Range (Avg)	2.1	1.9 - 5.5 (3.0)	3	ND - 3.3 (0.8)	Erosion of natural deposits; runoff from orchards, runoff from power plants, metal factories and waste incinerators
Selenium	ppb	50	50	Range (Avg)	ND	ND	2	ND	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines
ORGANIC CHEMICALS									
Dibromochloropropane (DBCP)	ppt	200	0	Range (Avg)	ND	ND - 50 (ND)	ND	ND	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Trichloroethylene (TCE)	ppb	5	0	Range (Avg)	ND	ND - 0.6 (ND)	ND	ND	Discharge from metal degreasing sites and other factories
Tetrachloroethylene (PCE)	ppb	5	0	Range (Avg)	ND	ND - 1.2 (ND)	ND	ND	Discharge from factories and dry cleaners
RADIONUCLIDES									
Alpha Particles	piC/L	15	0	Range (Avg)	0.3	ND - 6.0 (3.8)	3.6	ND - 4.4 (1.8)	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Radium 226/228 Combined	piC/L	5	0	Range (Avg)	NA	ND	ND	ND - 0.3 (ND)	Erosion of natural deposits
Uranium	ppb	30	0	Range (Avg)	4	NA	NA	NA	Erosion of natural deposits

TURBIDITY - WATER CLARITY					
			City Zone (Val Vista WTP)	East Zone (CAP Brown Road WTP)	Sources of Contamination in Drinking Water
Combined Filter Effluent Turbidity [K]	NTU and %	TT: No value can exceed 1 NTU and at least 95% of monthly samples must be less than or equal to 0.3 NTU	100% of monthly measurements were less than or equal to 0.3 NTU	100% of monthly measurements were less than or equal to 0.3 NTU	Soil Runoff
			Highest monthly measurement = 0.3 NTU	Highest monthly measurement = 0.09 NTU	

Some of our data, though representative, are more than one year old. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

2012 - 2015 Data | 2015 Data

ND = Non Detect; NA = Not Applicable
A single value displayed in the table denotes only one test performed.

[G] - To learn more about arsenic in drinking water please refer to page 5.

[H] - Compliance with the arsenic MCL standard was met at all times in 2015. Compliance with the MCL is determined by calculating the running annual average (RAA) of the most recent four quarters of samples collected at each source. Individual arsenic test results are shown in the range of results obtained in 2015.

(Footnotes continued at end of page 10)

2013-2015 Unregulated Contaminant Monitoring Rule (UCMR3)

Parameter	Units	MCL	MCLG	Range (Avg)	Entry Point to the Distribution System	Distribution System Maximum Residence Time	Purpose of the Rule
1,4-Dioxane	ppt	NA	NA	Range (Avg)	ND - 535 (8.8)	ND	Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the agency should consider regulating those contaminants in the future. UCMR3 was required monitoring between 2013-2015 for all water purveyors.
Bromochloromethane	ppt	NA	NA	Range (Avg)	ND - 94 (2.7)	ND	
Chlorate	ppb	NA	NA	Range (Avg)	ND - 300 (38)	ND - 440 (146)	
Chlorodifluoromethane	ppt	NA	NA	Range (Avg)	ND - 160 (4.9)	ND	
Chromium, Hexavalent Dissolved	ppb	NA	NA	Range (Avg)	0.031 - 24 (7.6)	0.038 - 13 (3.8)	
Chromium, Total	ppb	100	100	Range (Avg)	ND - 22 (6.5)	ND - 15 (3.6)	
Cobalt	ppb	NA	NA	Range (Avg)	ND - 1.1 (0.02)	ND	
Molybdenum	ppb	NA	NA	Range (Avg)	ND - 5.1 (1.2)	ND - 5.6 (2.1)	
Strontium	ppb	NA	NA	Range (Avg)	ND - 1100 (535)	20 - 1100 (664)	
Vanadium	ppb	NA	NA	Range (Avg)	ND - 32 (9.4)	ND - 18 (5.7)	

2013-2015 Data

ND = Non Detect

For more information about UCMR monitoring, visit www.water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/

2015 Other Non-Regulated Chemicals

Parameter	Units	MCL	MCLG	Range (Avg)	City Zone (Val Vista WTP)	City Zone Wells	Eastern Zone (CAP Brown Rd WTP	Eastern Zone Wells	**Water hardness is characterized by the following scale (gpg):**
pH	units	6.5 - 8.5	NA	Range	7.6 - 8.1	7.2 - 7.7	7.0 - 7.5	7.4 - 8.1	**0 - 4.4 = soft**
Calcium	ppm	NA	NA	Range (Avg)	50 - 57 (53)	33 - 109 (68)	72	3.7 - 54 (24)	**4.4 - 8.8 = moderately hard**
Magnesium	ppm	NA	NA	Range (Avg)	17 - 21 (19)	11 - 42 (26)	26	ND - 20 (4.7)	**8.8 - 17.5 = hard**
Potassium	ppm	NA	NA	Range (Avg)	3.1 - 7.0 (5.0)	3.4 - 7.6 (5.0)	4.7	ND - 5.6 (3.1)	**› 17.5 = very hard water**
Hardness [L]	gpg	NA	NA	Range (Avg)	12.1 - 12.5 (12.4)	8.2 - 23 (16)	17.6	ND - 12.3 (4.7)	
Sodium	ppm	NA	NA	Range (Avg)	241	123 - 220 (161)	91	50- 244 (88)	

Some of the data, though representative, are more than one year old. The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

2015 Data

ND = Non Detect; NA = Not Applicable
A single value displayed in the table denotes only one test performed.

[I] - To learn more about nitrates in drinking water please refer to page 4. While nitrates were detected in some of Mesa's sources, the MCL was not exceeded.

[J] - While many water suppliers continue to monitor nickel levels in water, there is currently no EPA maximum contaminate level (MCL) for nickel in drinking water. EPA is reconsidering the limit on nickel.

[K] - The turbidity level of the combined filter effluent at the Val Vista and CAP Brown Rd. Water Treatment Plants shall be less than or equal to 0.3% NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. This standard was met at both plants in 2015. Turbidity is a measure of the cloudiness of the water and is an indicator of the effectivness of our treatment systems.

[L] - Water hardness, measured in grains per gallon (gpg) as calcium carbonate. To convert gpg to mg/L (or parts per million), multiply the reported gpg value by 17.1.

Did you know?

SIGNAL BUTTE WATER TREATMENT PLANT

The new $125 million Signal Butte Water Treatment Plant, slated for completion in 2018, will increase Mesa's water capacity by 24 million gallons of water per day to serve customers in the southeastern portion of Mesa. The plant will utilize surface water from the Central Arizona Project canal, reducing reliance on well water. The new plant will provide redundant capacity for the Brown Road Water Treatment Plant which currently services both northeast and southeast Mesa. The Plant will incorporate safe and reliable water treatment technology with automation and quality monitoring systems to protect public health.

VAL VISTA TRANSMISSION MAIN

The $54 million Val Vista Transmission Main is a three-phase project to build a new water transmission main to deliver 90 million gallons of water from the Val Vista Water Treatment Plant to three City-owned reservoirs in the City Zone. Scheduled for completion in early 2017, the project includes 8.5 miles of 48"- 72" diameter waterlines. Over the long-term, the Val Vista Transmission main will save the City of Mesa millions of dollars in operational costs.

WATER REUSE AND BANKING

The City of Mesa is a partner in the Granite Reef Underground Storage Project that stores up to 93,000 acre-feet of water each year. Through artificial groundwater recharge, reclaimed water from Mesa's Northwest Water Reclamation Plant and surface water is stored in large, porous basins. The water then seeps into the natural underground aquifer where it can later be pumped as needed and to boost supplies during surface water shortages. At the state level, this form of recharge or "water banking" enables Arizona to maximize the use of its Colorado River water entitlement.

PIPE INSPECTION AND REPLACEMENT PROGRAM

The City of Mesa's water distribution system consists of approximately 2,370 miles of water mains with over 19,000 fire hydrants and 40,000 valves. Through the ongoing Pipe Inspection and Replacement Program, pipes are monitored using asset management software and replaced on a risk-based prioritization. Approximately $5 million a year is set aside for planned water main replacements with an additional $1 million a year for unplanned or emergency replacements.

PROTECTING OUR WATER QUALITY AND THE ENVIRONMENT

Be Water-Wise: Water conservation goes hand-in-hand with water pollution prevention. Using less water reduces the risk of the contamination of our water supplies. Mesa works to inspire conservation efforts by our community members through educational materials, easy water-saving tips, rebate programs, water-efficient landscaping ideas and more. Visit **www.mesaaz.gov/conservation**.

WATER USE IT WISELY®
wateruseitwisely.com

Keep Our Waterways Clean: When it rains, our yards can become channels to our waterways. A storm can wash fertilizers, herbicides, pesticides and other chemicals from yards into the streets and eventually our waterways. For helpful tips visit **www.azstorm.org**.

Drain Your Pool Properly: City Code prohibits draining your pool or spa water into city streets, alleyways and rights-of–way. Pool water discharges can contain environmentally harmful pollutants such as excess salts, elevated chlorine and other chemicals, and even nuisances such as mosquito larvae. For helpful tips on how to legally drain your pool, visit **www.mesaaz.gov/residents/environmental**.

Safely Dispose of Unused Medications: Do not flush unused medications and personal health care products down the sink or toilet because it introduces these chemicals into the water supply and environment. Learn how to responsibly dispose of unused medications at **www.mesaaz.gov/residents/solid-waste-trash-recycling/prescription-medication-disposal**.

HOW YOU CAN GET INVOLVED

If you wish to provide input on water-related issues, the Mesa City Council meets at 5:45 p.m. the first and third Monday of each month in Council Chambers, located at **57 E. 1st Street**, unless otherwise noted. For a complete meeting schedule, visit **www.mesaaz.gov/city-hall**.

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WATER RESOURCES

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WATER RESOURCES

FOR MORE INFORMATION

Online Consumer Confidence Report - **www.mesaaz.gov/ccr**
City of Mesa Water Quality Services, Ken Marshall **(480) 644-6461**

- E-mail address - **water.quality@mesaaz.gov**
- City of Mesa home page – **www.mesaaz.gov**

Maricopa County Environmental Services Department **(602) 506-6666**
Arizona Department of Environmental Quality (ADEQ) **(602) 771-2300**
Environmental Protection Agency (EPA) **(800) 426-4791**
If you would like a copy of this report emailed or mailed to you, please contact the City of Mesa Water Quality Services at **(480) 644-6461** or **water.quality@mesaaz.gov**.

EN ESPAÑOL

Si gusta recibir esta información en Español, por favor de llamar al **480-644-4364**. Proporciónele su nombre y domicilio para enviarle este folleto en Español.